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## SNAPSHOT

# Hard Work is a Good Investment

**Laborers endure challenging conditions to improve access to water**



Photo: USAID/CDP/CADG

*Mountainous ridges surround a village on the outskirts of Ghazni City. Irrigation canals built into narrow valleys near these towns face unique challenges.*

***Thanks to the USAID-funded Joyee Kamil irrigation project, villagers cleared hundreds of cubic meters of silt in long hand-to-hand chains that stretched up and over nearby mountain ridges.***

Walk far enough along a village canal system in eastern Afghanistan and you will find yourself in the mountains. Open canal paths and friable soil give way to tight corridors framed by towering granite mountains. These corridors become choke points when snowmelt creates floods, driving rock down from mountain ridges toward local intakes and canals.

Not only do canals suffer early failures in mountain valleys, these failures are also far more difficult to repair than similar failures along broad plains.

To address this problem, the governor of Ghanzi Province initiated repairs to the Joyee Kamil canal in cooperation with USAID. The 1,000 person workforce easily managed reconstruction work along the flat stretch near Ghazni City. The workers faced a more difficult task as they moved away from the city toward Kosk village in the mountains.

In the Boq Boqi village area, the most mountainous section of the 18 km repair project, workers could no longer pack dirt into walls along the canal banks. Instead, they formed chains of 70 to 80 men against a 75 degree incline on either side of the canal. Each man handed one shovelful of dirt at a time to the next man in line, slowly carrying silt, gravel, and broken rock out of the canal and up over the mountain ridges to flat points where they could be disposed of without creating a new threat of erosion. While the workforce was able to clear 1,000 m<sup>3</sup> per day in the floodplains, pace slowed to 15 m<sup>3</sup> a day in Boq Boqi. Given the sheer difficulty of the task, Boq Boqi had not been cleaned in 200 years.

After removing the silt and rock, the workforce shaped and lined the canal with stone and concrete for strength. Workers further added a cement cap, creating a siphon along one section prone to rock fall. This work, which was finished in late July, has cleared up a major chokepoint along the Joyee Kamil irrigation system, easing access to water for 4,400 families downstream.

Villagers and laborers alike consider this grueling work a good investment. Hal Gul, a local resident explained, "This work was exhausting. I went home trembling at night. At the same time, I am happy that we will have sufficient water for the first time in my life."